

UC 059-001A
OIP
JUN 04 2001
PATENT & TRADEMARK OFFICE
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Sharp et al.) Group Art Unit 1646

Appl. No. : 09/782,816)

Filed : February 14, 2001)

For : PEPTIDE INHIBITORS OF)
CELLULAR)
PROLIFERATION)

Examiner : Unknown)

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on

May 30, 2001

(Date)

Ginger R. Dreger
Ginger R. Dreger, Reg. No. 33,055

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In response to the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures, mailed on May 8, 2001, Applicants hereby request the entry of the substitute "Sequence Listing" submitted concurrently herewith into the specification, starting on a new page, immediately following the claims.

Kindly amend this application in the following aspects.

In the Specification:

Please replace the paragraph beginning at page 3, line 21, with the following rewritten paragraph:

--In one aspect, the invention concerns an isolated peptide selected from the group consisting of:

(X1)_nEVEKIKTTVKESATEEKLTPVXaaL(X2)_m (SEQ ID NO: 1),

(Y1)_nEVAALQVDRKVADEEKQSYDAV(Y2)_m (SEQ ID NO: 2),

wherein

Appl. No. : 09/782,816
Filed : February 14, 2001

n and m independently represent 0 or 1, and Xaa is V or L;

X1 and X2 are independently defined as follows

X1 is GVKETPQQKYQRLHEVQELTT (SEQ ID NO: 3), or
VKETPQQKYQRLHEVQELTT (SEQ ID NO: 4), or
KETPQQKYQRLHEVQELTT (SEQ ID NO: 5) or,
ETPQQKYQRLHEVQELTT (SEQ ID NO: 6) or,
TPQQKYQRLHEVQELTT (SEQ ID NO: 7) or,
PQQKYQRLHEVQELTT (SEQ ID NO: 8) or,
QQKYQRLHEVQELTT (SEQ ID NO: 9) or,
QKYQRLHEVQELTT (SEQ ID NO: 10) or,
KYQRLHEVQELTT (SEQ ID NO: 11) or,
YQRLHEVQELTT (SEQ ID NO:12) or,
QRLHEVQELTT (SEQ ID NO: 13) or,
RLHEVQELTT (SEQ ID NO: 14) or,
LHEVQELTT (SEQ ID NO: 15) or,
LHEVQELTT (SEQ ID NO: 16) or,
HEVQELTT (SEQ ID NO: 17) or,
EVQELTT (SEQ ID NO: 18) or,
VQELTT (SEQ ID NO: 19) or,
QELTT (SEQ ID NO: 20) or,
ELTT (SEQ ID NO: 21), or
LTT, or
TT, or
T;

and

X2 is AKQLAAL (SEQ ID NO: 22), or
AKQLAA (SEQ ID NO: 23), or
AKQLA (SEQ ID NO: 24), or
AKQL (SEQ ID NO: 25), or
AKQ, or
AK, or

Appl. No. : 09/782,816
Filed : February 14, 2001

A;

and

Y1 and Y2 are independently defined as follows

Y1 is GEKETPVQKCQRLQIEMNELLN (SEQ ID NO: 26), or
EKETPVQKCQRLQIEMNELLN (SEQ ID NO: 27), or
KETPVQKCQRLQIEMNELLN (SEQ ID NO: 28), or
ETPVQKCQRLQIEMNELLN (SEQ ID NO: 29), or
TPVQKCQRLQIEMNELLN (SEQ ID NO: 30), or
PVQKCQRLQIEMNELLN (SEQ ID NO: 31), or
VQKCQRLQIEMNELLN (SEQ ID NO: 32), or
QKCQRLQIEMNELLN (SEQ ID NO: 33), or
KCQRLQIEMNELLN (SEQ ID NO: 34), or
CQRLQIEMNELLN (SEQ ID NO: 35), or
QRLQIEMNELLN (SEQ ID NO: 36), or
RLQIEMNELLN (SEQ ID NO: 37), or
LQIEMNELLN (SEQ ID NO: 38), or
QIEMNELLN (SEQ ID NO: 39), or
IEMNELLN (SEQ ID NO: 40), or
EMNELLN (SEQ ID NO: 41), or
MNELLN (SEQ ID NO: 42), or
NELLN (SEQ ID NO: 43), or
ELLN (SEQ ID NO: 44), or
LLN, or
LN, or
N; and

Y2 is VATVISTAR (SEQ ID NO: 45), or
VATVISTA (SEQ ID NO: 46), or
VATVIST (SEQ ID NO: 47), or
VATVIS (SEQ ID NO: 48), or
VATVI (SEQ ID NO: 49), or
VATV (SEQ ID NO: 50), or

Appl. No. : 09/782,816
Filed : February 14, 2001
VAT, or
VA, or
V, and

derivatives thereof having at least about 90% identity with SEQ ID NO: 1 or SEQ ID NO: 2.--

Please replace the paragraph beginning at page 5, line 31, with the following rewritten paragraph:

--In a preferred embodiment, the peptide has one of the following sequences: GVKETPQQKYQRLLHEVQELTTEVEKIKTTVKESATEEKLTPVXaaLAKQLAAL (SEQ ID NO: 51), where Xaa is as defined above, or GEKETPVQKCQRLQIEMNELLNEVAALQVDRKVADEEKQSYDAVVATVISTAR (SEQ ID NO: 52), or has at least about 75%, preferably at least about 80%, more preferably at least about 85%, even more preferably at least about 90%, most preferably at least about 95% identity with one of these sequences. Preferably, the peptide variants contain only conservative amino acid substitutions compared to the reference peptide sequences.--

Please replace the paragraph beginning at page 7, line 4, with the following rewritten paragraph:

--Figure 1 is the amino acid sequence of human p50 (SEQ ID NO: 53), wherein the peptide of SEQ ID NO: 51 (Xaa is L) is bolded and underlined.--

Please replace the paragraph beginning at page 7, line 6, with the following rewritten paragraph:

-- Figure 2 is the partial amino acid sequence of mouse p50 (SEQ ID NO: 54), wherein the peptide of SEQ ID NO: 51 (Xaa is V) is bolded and underlined.--

In the Claims:

Please amend the claims to read as follows:

Appl. No. : 09/782,816
Filed : February 14, 2001

1(Amended). An isolated peptide selected from the group consisting of:

(X1)_nEVEKIKTTVKESATEEKLTPVXaaL(X2)_m (SEQ ID NO: 1),

(Y1)_nEVAALQVDRKVADEEKQSYDAV(Y2)_m (SEQ ID NO: 2),

wherein

n and m independently represent 0 or 1, and Xaa is V or L;

X1 and X2 are independently defined as follows

X1 is GVKETPQQKYQRLLEHVQELTT (SEQ ID NO: 3), or

VKETPQQKYQRLLEHVQELTT (SEQ ID NO: 4), or

KETPQQKYQRLLEHVQELTT (SEQ ID NO: 5) or,

ETPQQKYQRLLEHVQELTT (SEQ ID NO: 6) or,

TPQQKYQRLLEHVQELTT (SEQ ID NO: 7) or,

PQQKYQRLLEHVQELTT (SEQ ID NO: 8) or,

QQKYQRLLEHVQELTT (SEQ ID NO: 9) or,

QKYQRLLEHVQELTT (SEQ ID NO: 10) or,

KYQRLLEHVQELTT (SEQ ID NO: 11) or,

YQRLLEHVQELTT (SEQ ID NO: 12) or,

QRLLEHVQELTT (SEQ ID NO: 13) or,

RLLEHVQELTT (SEQ ID NO: 14) or,

LLHEVQELTT (SEQ ID NO: 15) or,

LHEVQELTT (SEQ ID NO: 16) or,

HEVQELTT (SEQ ID NO: 17) or,

EVQELTT (SEQ ID NO: 18) or,

VQELTT (SEQ ID NO: 19) or,

QELTT (SEQ ID NO: 20) or,

ELTT (SEQ ID NO: 21), or

LTT, or

TT, or

T;

and

X2 is AKQLAAL (SEQ ID NO: 22), or

AKQLAA (SEQ ID NO: 23), or

Appl. No. : 09/782,816
Filed : February 14, 2001

AKQLA (SEQ ID NO: 24), or

AKQL (SEQ ID NO: 25), or

AKQ, or

AK, or

A;

and

Y1 and Y2 are independently defined as follows

Y1 is GEKETPVQKCQRLQIEMNELLN (SEQ ID NO: 26), or

EKETPVQKCQRLQIEMNELLN (SEQ ID NO: 27), or

KETPVQKCQRLQIEMNELLN (SEQ ID NO: 28), or

ETPVQKCQRLQIEMNELLN (SEQ ID NO: 29), or

TPVQKCQRLQIEMNELLN (SEQ ID NO: 30), or

PVQKCQRLQIEMNELLN (SEQ ID NO: 31), or

VQKCQRLQIEMNELLN (SEQ ID NO: 32), or

QKCQRLQIEMNELLN (SEQ ID NO: 33), or

KCQRLQIEMNELLN (SEQ ID NO: 34), or

CQRLQIEMNELLN (SEQ ID NO: 35), or

QRLQIEMNELLN (SEQ ID NO: 36), or

RLQIEMNELLN (SEQ ID NO: 37), or

LQIEMNELLN (SEQ ID NO: 38), or

QIEMNELLN (SEQ ID NO: 39), or

IEMNELLN (SEQ ID NO: 40), or

EMNELLN (SEQ ID NO: 41), or

MNELLN (SEQ ID NO: 42), or

NELLN (SEQ ID NO: 43), or

ELLN (SEQ ID NO: 44), or

LLN, or

LN, or

N; and

Y2 is VATVISTAR (SEQ ID NO: 45), or

VATVISTA (SEQ ID NO: 46), or

Appl. No. : 09/782,816
Filed : February 14, 2001
VATVIST (SEQ ID NO: 47), or
VATVIS (SEQ ID NO: 48), or
VATVI (SEQ ID NO: 49), or
VATV (SEQ ID NO: 50), or
VAT, or
VA, or
V, and

derivatives thereof having at least about 90% identity with SEQ ID NO: 1 or SEQ ID NO: 2.

2(Amended). The peptide of claim 1 which is
GVKETPQQKYQRLLHEVQELTTEVEKIKTTVKESATEEKLTPVXaaLAKQLAAL (SEQ ID
NO: 51),
wherein Xaa is as defined in claim 1.

Appl. No. : 09/782,816
Filed : February 14, 2001

Remarks

The amendments in the specification are of formal nature and serve to ensure conformation of the representations for the amino acids in the specification to the currently filed Sequence Listing. The amendments do not add new matter.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendments. The attached page is captioned "Version with markings to show changes made."

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: May 30, 2001

By: 

Ginger R. Dreger
Registration No. 33,055
Attorney of Record
620 Newport Center Drive
Sixteenth Floor
Newport Beach, CA 92660

Appl. No. : 09/782,816
Filed : February 14, 2001

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

The paragraph beginning at page 3, line 21, has been amended as follows:

--In one aspect, the invention concerns an isolated peptide selected from the group consisting of:

(X1)_nEVEKIKTTVKESATEEKLTPV[X2]XaaL(X2)_m (SEQ ID NO: 1),

(Y1)_nEVAALQVDRKVADEEKQSYDAV(Y2)_m (SEQ ID NO: 2),

wherein

n and m independently represent 0 or 1, and Xaa is V or L;

X1[, X2 and X3] and X2 are independently defined as follows

X1 is GVKETPQQKYQRLHEVQELTT (SEQ ID NO: 3), or

VKETPQQKYQRLHEVQELTT (SEQ ID NO: 4), or

KETPQQKYQRLHEVQELTT (SEQ ID NO: 5) or,

ETPQQKYQRLHEVQELTT (SEQ ID NO: 6) or,

TPQQKYQRLHEVQELTT (SEQ ID NO: 7) or,

PQQKYQRLHEVQELTT (SEQ ID NO: 8) or,

QQKYQRLHEVQELTT (SEQ ID NO: 9) or,

QKYQRLHEVQELTT (SEQ ID NO: 10) or,

KYQRLHEVQELTT (SEQ ID NO: 11) or,

YQRLHEVQELTT (SEQ ID NO: 12) or,

QRLHEVQELTT (SEQ ID NO: 13) or,

RLHEVQELTT (SEQ ID NO: 14) or,

LLHEVQELTT (SEQ ID NO: 15) or,

LHEVQELTT (SEQ ID NO: 16) or,

HEVQELTT (SEQ ID NO: 17) or,

EVQELTT (SEQ ID NO: 18) or,

VQELTT (SEQ ID NO: 19) or,

QELTT (SEQ ID NO: 20) or,

ELTT (SEQ ID NO: 21), or

Appl. No. : 09/782,816
Filed : February 14, 2001

LTT, or

TT, or

T;

[X2 is V or L,] and

[X3] X2 is AKQLAAL (SEQ ID NO: 22), or

AKQLAA (SEQ ID NO: 23), or

AKQLA (SEQ ID NO: 24), or

AKQL (SEQ ID NO: 25), or

AKQ, or

AK, or

A;

and

Y1 and Y2 are independently defined as follows

Y1 is GEKETPVQKCQRLQIEMNELLN (SEQ ID NO: 26), or

EKETPVQKCQRLQIEMNELLN (SEQ ID NO: 27), or

KETPVQKCQRLQIEMNELLN (SEQ ID NO: 28), or

ETPVQKCQRLQIEMNELLN (SEQ ID NO: 29), or

TPVQKCQRLQIEMNELLN (SEQ ID NO: 30), or

PVQKCQRLQIEMNELLN (SEQ ID NO: 31), or

VQKCQRLQIEMNELLN (SEQ ID NO: 32), or

QKCQRLQIEMNELLN (SEQ ID NO: 33), or

KCQRLQIEMNELLN (SEQ ID NO: 34), or

CQRLQIEMNELLN (SEQ ID NO: 35), or

QRLQIEMNELLN (SEQ ID NO: 36), or

RLQIEMNELLN (SEQ ID NO: 37), or

LQIEMNELLN (SEQ ID NO: 38), or

QIEMNELLN (SEQ ID NO: 39), or

IEMNELLN (SEQ ID NO: 40), or

EMNELLN (SEQ ID NO: 41), or

MNELLN (SEQ ID NO: 42), or

NELLN (SEQ ID NO: 43), or

Appl. No. : 09/782,816
Filed : February 14, 2001

ELLN (SEQ ID NO: 44), or

LLN, or

LN, or

N; and

Y2 is VATVISTAR (SEQ ID NO: 45), or

VATVISTA (SEQ ID NO: 46), or

VATVIST (SEQ ID NO: 47), or

VATVIS (SEQ ID NO: 48), or

VATVI (SEQ ID NO: 49), or

VATV (SEQ ID NO: 50), or

VAT, or

VA, or

V, and

derivatives thereof having at least about 90% identity with SEQ ID NO: 1 or SEQ ID NO: 2.--

The paragraph beginning at page 5, line 31, has been amended as follows:

--In a preferred embodiment, the peptide has one of the following sequences:GVKETPQQKYQRLLEHVQELTTEVEKIKTTVKESATEEKLTPV[X2]XaaLAKQ LAAL (SEQ ID NO: 51), where [X2] Xaa is as defined above, or GEKETPVQKCQRLQIEMNELLNEVAALQVDRKVADEEKQSYDAVVATVISTAR (SEQ ID NO: 52), or has at least about 75%, preferably at least about 80%, more preferably at least about 85%, even more preferably at least about 90%, most preferably at least about 95% identity with one of these sequences. Preferably, the peptide variants contain only conservative amino acid substitutions compared to the reference peptide sequences.--

The paragraph beginning at page 7, line 4, has been amended as follows:

--Figure 1 is the amino acid sequence of human p50 (SEQ ID NO: 53), wherein the peptide of SEQ ID NO: 51 ([X2] Xaa is L) is bolded and underlined.--

Appl. No. : 09/782,816
Filed : February 14, 2001

The paragraph beginning at page 7, line 6, has been amended as follows:

-- Figure 2 is the partial amino acid sequence of mouse p50 (SEQ ID NO: 54), wherein the peptide of SEQ ID NO: 51 ([X2] Xaa is V) is bolded and underlined.--

In the claims:

Claims 1 and 2 have been amended as follows:

1(Amended). An isolated peptide selected from the group consisting of:

(X1)_nEVEKIKTTVKESATEEKLTPV[X2]XaaL(X2)_m (SEQ ID NO: 1),

(Y1)_nEVAALQVDRKVADEEKQSYDAV(Y2)_m (SEQ ID NO: 2),

wherein

n and m independently represent 0 or 1, and Xaa is V or L;

X1[, X2 and X3] and X2 are independently defined as follows

X1 is GVKETPQQKYQRLLHEVQELTT (SEQ ID NO: 3), or

VKETPQQKYQRLLHEVQELTT (SEQ ID NO: 4), or

KETPQQKYQRLLHEVQELTT (SEQ ID NO: 5) or,

ETPQQKYQRLLHEVQELTT (SEQ ID NO: 6) or,

TPQQKYQRLLHEVQELTT (SEQ ID NO: 7) or,

PQQKYQRLLHEVQELTT (SEQ ID NO: 8) or,

QQKYQRLLHEVQELTT (SEQ ID NO: 9) or,

QKYQRLLHEVQELTT (SEQ ID NO: 10) or,

KYQRLLHEVQELTT (SEQ ID NO: 11) or,

YQRLLHEVQELTT (SEQ ID NO: 12) or,

QRLLHEVQELTT (SEQ ID NO: 13) or,

RLLHEVQELTT (SEQ ID NO: 14) or,

LLHEVQELTT (SEQ ID NO: 15) or,

LHEVQELTT (SEQ ID NO: 16) or,

HEVQELTT (SEQ ID NO: 17) or,

EVQELTT (SEQ ID NO: 18) or,

VQELTT (SEQ ID NO: 19) or,

QELTT (SEQ ID NO: 20) or,

Appl. No. : 09/782,816
Filed : February 14, 2001

ELTT (SEQ ID NO: 21), or

LTT, or

TT, or

T;

[X2 is V or L,] and

[X3] X2 is AKQLAAL (SEQ ID NO: 22), or

AKQLAA (SEQ ID NO: 23), or

AKQLA (SEQ ID NO: 24), or

AKQL (SEQ ID NO: 25), or

AKQ, or

AK, or

A;

and

Y1 and Y2 are independently defined as follows

Y1 is GEKETPVQKCQRLQIEMNELLN (SEQ ID NO: 26), or

EKETPVQKCQRLQIEMNELLN (SEQ ID NO: 27), or

KETPVQKCQRLQIEMNELLN (SEQ ID NO: 28), or

ETPVQKCQRLQIEMNELLN (SEQ ID NO: 29), or

TPVQKCQRLQIEMNELLN (SEQ ID NO: 30), or

PVQKCQRLQIEMNELLN (SEQ ID NO: 31), or

VQKCQRLQIEMNELLN (SEQ ID NO: 32), or

QKCQRLQIEMNELLN (SEQ ID NO: 33), or

KCQRLQIEMNELLN (SEQ ID NO: 34), or

CQRLQIEMNELLN (SEQ ID NO: 35), or

QRLQIEMNELLN (SEQ ID NO: 36), or

RLQIEMNELLN (SEQ ID NO: 37), or

LQIEMNELLN (SEQ ID NO: 38), or

QIEMNELLN (SEQ ID NO: 39), or

IEMNELLN (SEQ ID NO: 40), or

EMNELLN (SEQ ID NO: 41), or

MNELLN (SEQ ID NO: 42), or

Appl. No. : 09/782,816
Filed : February 14, 2001

NELLN (SEQ ID NO: 43), or

ELLN (SEQ ID NO: 44), or

LLN, or

LN, or

N; and

Y2 is VATVISTAR (SEQ ID NO: 45), or

VATVISTA (SEQ ID NO: 46), or

VATVIST (SEQ ID NO: 47), or

VATVIS (SEQ ID NO: 48), or

VATVI (SEQ ID NO: 49), or

VATV (SEQ ID NO: 50), or

VAT, or

VA, or

V, and

derivatives thereof having at least about 90% identity with SEQ ID NO: 1 or SEQ ID NO: 2.--

2(Amended). The peptide of claim 1 which is

GVKETPQQKYQRLLHEVQELTTEVEKIKTTVKESATEEKLTPV[X2]XaaLAKQLAAL

(SEQ ID NO: 51),

wherein [X2] Xaa is as defined in claim 1.

W:\DOCS\GRD\GRD-5619.DOC
052901